Restriction Requirement

The Examiner imposed a restriction requirement under 35 U.S.C. §121 between three groups of claims. Applicants elect group 1 (claims 1, 3, 4, 8-15 and 28-40) with traverse. Under MPEP 803, a restriction requirement is only proper when there are distinct inventions **and** when the searching of the multiple inventions imposes a significant burden for searching the multiple inventions. In the present case, claims 16 and 17 in groups II and III depend from claim 1. In addition, these claims have been in prosecution through six substantive Office Actions. Therefore, Applicants respectfully assert that no significant burden would result from the continued examination of claims 16 and 17.

The Examiner further imposed a restriction requirement within three species groups. With respect to the first species group, Applicants elect species A (claims 8-10, 29 and 35) without traverse. Applicants note that claim 1 and some claims depending therefrom are generic for the first species group. With respect to the second species group, Applicants elect species "a" (antibody-antigen) without traverse. Applicants note that claim 1 is generic in view of the Markush group. With respect to the third species group, Applicants elect a heart valve prosthesis without traverse. Applicants note that all of the claims are generic with respect to the third species group.

The Examiner has further asserted that claim 15 is unclear. Applicants believe that claim 15 is perfectly clear since Applicants can be their own lexicographer and since the specification at page 7, lines 20-25 identify all of the species as prostheses. Nevertheless, to advance prosecution of the case, Applicants have amended the preamble of the claims to recite biomedical device.

CONCLUSIONS

In view of the foregoing, it is submitted that this application is in condition for allowance. Favorable consideration and prompt allowance of the application are respectfully requested.

The Examiner is invited to telephone the undersigned if the Examiner believes it would be useful to advance prosecution.

Respectfully submitted,

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Shari R. Thorndike

July 24, 2002
Date

Shari R. Thorndike

Application No. 09/186,810

ATTACHMENT
REDLINED AMENDMENT

Title As Amended

The title has been amended as follows:

MEDICAL DEVICES [PROSTHESES] WITH ASSOCIATED GROWTH FACTORS

Claims As Amended

The claims have been amended as follows:

1. (Seven Times Amended) A [prosthesis] biomedical device comprising a substrate and a polypeptide growth factor associated with the substrate by covalent bonding using crosslinking agents, antibody-antigen associations, specific binding protein-receptor associations or enzyme-substrate associations, wherein the crosslinking agents comprise at least two aldehyde functional groups that form covalent bonds to link the crosslinking agent directly with the polypeptide growth factor and the substrate, the polypeptide growth factor associated with the substrate being effective to stimulate association of viable cells with the substrate, and the substrate.

3. (Amended) The [prosthesis] biomedical device of claim 1 wherein the crosslinking agent comprises difunctional aldehydes.

4. (Amended) The [prosthesis] biomedical device of claim 3 wherein the difunctional aldehyde comprises glutaraldehyde.

8. (Amended) The [prosthesis] biomedical device of claim 1 wherein the substrate comprises tissue.

9. (Amended) The [prosthesis] biomedical device of claim 1 wherein the substrate comprises human tissue.

10. (Amended) The [prosthesis] biomedical device of claim 1 wherein the substrate is selected from the group consisting of porcine tissue, bovine tissue, kangaroo tissue, canine tissue and a combination thereof.

11. (Amended) The [prosthesis] biomedical device of claim 1 wherein the substrate comprises a synthetic substrate.

12. (Amended) The [prosthesis] biomedical device of claim 1 wherein the substrate comprises a bioresorbable material.

13. (Amended) The [prosthesis] biomedical device of claim 1 wherein the polypeptide growth factor comprises vascular endothelial growth factor.

14. (Amended) The [prosthesis] biomedical device of claim 1 wherein the polypeptide growth factor comprises Tat protein.

15. (Amended) The [prosthesis] biomedical device of claim 1 wherein the [prosthesis] biomedical device comprises an artificial organ, a heart valve prosthesis, an annuloplasty ring, a stent, a pledget, suture, an electrical lead, a permanently in-dwelling percutaneous device, an AV shunt, a vascular graft, a dermal graft or a surgical patch.

16. (Amended) A method for associating endothelial cells with a substrate, the method comprising contacting a [prosthesis] biomedical device of claim 1 with a cell culture comprising endothelial cells.

17. (Amended) A method for distributing a medical article for use by health care professionals, comprising placing a [prosthesis] biomedical device of claim 1 into a package under sterile conditions and distributing the package for use by health care professionals.

28. (Twice Amended) A [prosthesis] biomedical device comprising a biocompatible substrate and a polypeptide growth factor associated with the biocompatible substrate, the polypeptide growth factor being effective to stimulate association of viable cells with the substrate, wherein the polypeptide growth factor comprises Tat protein.

29. (Amended) The [prosthesis] biomedical device of claim 28 wherein the biocompatible substrate comprises tissue.

30. (Amended) The [prosthesis] biomedical device of claim 28 wherein the biocompatible substrate comprises a synthetic material.

31. (Amended) The [prosthesis] biomedical device of claim 28 wherein the substrate comprises a bioresorbable material.

32. (Amended) The [prosthesis] biomedical device of claim 28 wherein the polypeptide growth factor is bonded to the substrate with a crosslinking agent.

33. (Amended) The [prosthesis] biomedical device of claim 28 further comprising an adhesive, the adhesive being associated with the polypeptide growth factor and the substrate.

34. (Amended) A [prosthesis] biomedical device comprising a substrate and a polypeptide growth factor associated with the substrate by antibody-antigen associations, specific binding protein-receptor associations or enzyme-substrate associations, the polypeptide growth factor associated with the substrate being effective to stimulate association of viable cells with the substrate.

35. (Amended) The [prosthesis] biomedical device of claim 34 wherein the biocompatible substrate comprises tissue.

36. (Amended) The [prosthesis] biomedical device of claim 34 wherein the biocompatible substrate comprises a synthetic material.

37. (Amended) The [prosthesis] biomedical device of claim 34 wherein the substrate comprises a bioresorbable material.

38. (Amended) The [prosthesis] biomedical device of claim 34 wherein the polypeptide growth factor is associated with the substrate by antibody-antigen associations.

39. (Amended) The [prosthesis] biomedical device of claim 34 wherein the polypeptide growth factor is associated with the substrate by specific binding protein-receptor associations.

40. (Amended) The [prosthesis] biomedical device of claim 34 wherein the polypeptide growth factor is associated with the substrate by enzyme-substrate associations.